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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	10/644,680
	Filing Date	August 20, 2003
	First Named Inventor	Kevin J. Frank et al.
	Art Unit	3736
	Examiner Name	To be determined
Total Number of Pages in This Submission	Attorney Docket Number	5074A-000064

**ENCLOSURES (check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <b>Form 1449 citing 138 U.S. Patent Documents, citing and enclosing 39 Foreign Patent Documents, and citing and enclosing 52 Other Documents; and acknowledgment postcard.</b>
<b>Remarks</b> The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.		

BEST AVAILABLE COPY

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name	Richard W. Warner	Reg. No.	38,043
Signature					
Date	Sept. 19, 2006				

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Richard W. Warner	Express Mail Label No.	EV 806662517 US
Signature		Date	Sept 19, 2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

14



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/644,680  
Filing Date: August 20, 2003  
Applicant: Kevin J. Frank et al.  
Group Art Unit: 3736  
Examiner: To be determined  
Title: METHOD AND APPARATUS FOR PERFORMING 2D TO 3D  
REGISTRATION  
Attorney Docket: 5074A-000064

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Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A. ☒ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) each unpublished U.S. application listed below in Section IV (i.e., including the specification, claims, and any drawing of the application, or that portion of the application which caused it to be listed, including any claims directed to that portion), except for such applications filed on or after June 30, 2003, pursuant to the Waiver of the Copy Requirement in 37 C.F.R. 1.98 (OG Notice dated

October 19, 2004); and (iv) all other information or that portion which caused it to be listed.

B. ☐ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).)

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☒ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☒ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☐ See the attached foreign patent office communication from a counterpart foreign application:

2. ☐ English translations are provided:

3. ☒ Other:

Japanese Patent No. 61-94639 appears to disclose a head mounting device.

Japanese Patent No. 62-327 appears to disclose scans of a head.

Japanese Patent No. 63-240851 appears to disclose a head holding device.

Other document entitled "Reinhardt, H.F., et al., Mikrochirurgische Entfernung tiefliegender Gefäßmißbildungen mit Hilfe der Sonar-Stereometrie (Microsurgical Removal of Deep-Seated Vascular Malformations Using Sonar Stereometry)" is included with an English abstract.

English abstracts are provided for:

French Patent No. 2 618 211  
Japanese Patent No. 3267044  
German Patent No. 35 08730  
German Patent No. 37 17 871  
German Patent No. 38 38011  
German Patent No. 42 13 426  
German Patent No. 42 25 112  
German Patent No. 197 15 202  
German Patent No. 197 47 427  
German Patent No. 197 51 761  
German Patent No. 198 32 296  
WIPO Patent No. 95/07055  
WIPO Patent No. 97/36192  
WIPO Patent No. 99/21498

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☐ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.

Filing Date

Inventor(s)

V. THIS IDS IS BEING FILED UNDER

A. ☒ **37 C.F.R. § 1.97(b):** (check only one box)

1. ☐ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. ☒ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☐ **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. ☐ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ☐ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. **CERTIFICATION UNDER 37 C.F.R. § 1.97(e):** (check only one box)

The undersigned hereby certifies that:

A. ☐ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. ☐ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ☐ some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 C.F.R. 1.704(d)

The undersigned hereby states that:

☐ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box, if applicable)

A. ☐ A check in the amount of \$180.00 is enclosed for the above-identified fee.

B. ☐ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-identified fee. A duplicate copy of this paper is attached.


Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

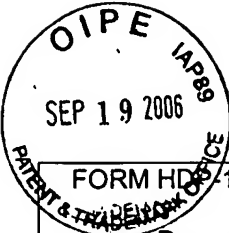
If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Respectfully submitted,

Date: Sept. 19, 2006

By:   
Richard W. Warner, Reg. No. 38,043  
Michael L. Taylor, Reg. No. 50,521

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600



<b>FORM HD-1449 (Based on Form PTO-1449)</b> <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 1 of 11	ATTORNEY DOCKET No.	SERIAL No.
	5074A-000064	10/644,680
	APPLICANT	
	Kevin J. Frank et al.	
	FILING DATE	GROUP
	August 20, 2003	3736

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		3,109,588	11/1963	Polhemus et al.		
2.		3,614,950	10/1971	Rabey		
3.		3,644,825	02/1972	Davis, Jr. et al.		
4.		3,821,469	06/1974	Whetstone et al.		
5.		3,983,474	09/1976	Kuipers		
6.		4,017,858	04/1977	Kuipers		
7.		4,182,312	01/1980	Mushabac		
8.		4,228,799	10/1980	Anichkov et al.		
9.		4,256,112	03/1981	Kopf et al.		
10.		4,298,874	11/1981	Kuipers		
11.		4,319,136	03/1982	Jinkins		
12.		4,328,548	05/1982	Crow et al.		
13.		4,341,220	07/1982	Perry		
14.		4,346,384	08/1982	Raab		
15.		4,396,945	08/1983	DiMatteo et al.		
16.		4,419,012	12/1983	Stephenson et al.		
17.		4,506,676	03/1985	Duska		
18.		4,571,834	02/1986	Fraser et al.		
19.		4,583,538	04/1986	Onik et al.		
20.		4,608,977	09/1986	Brown		
21.		4,617,925	10/1986	Laitinen		
22.		4,638,798	01/1987	Shelden et al.		
23.		4,659,971	04/1987	Suzuki et al.		
24.		4,660,970	04/1987	Ferrano		
25.		4,688,037	08/1987	Krieg		
26.		4,701,049	10/1987	Beckmann et al.		

Examiner:	Date Considered:
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 2 of 11	ATTORNEY DOCKET NO.	SERIAL NO.
	5074A-000064	10/644,680
	APPLICANT	
	Kevin J. Frank et al.	
	FILING DATE	GROUP
	August 20, 2003	3736

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
27.		4,705,395	11/1987	Hageniers		
28.		4,705,401	11/1987	Addleman et al.		
29.		4,709,156	11/1987	Murphy et al.		
30.		4,710,708	12/1987	Rorden et al.		
31.		4,723,544	02/1988	Moore et al.		
32.		4,733,969	03/1988	Case et al.		
33.		Re. 32,619	03/1988	Damadian		
34.		4,737,032	04/1988	Addleman et al.		
35.		4,742,356	05/1988	Kuipers		
36.		4,742,815	05/1988	Ninan et al.		
37.		4,743,770	05/1988	Lee		
38.		4,743,771	05/1988	Sacks et al.		
39.		4,745,290	05/1988	Frankel et al.		
40.		4,753,528	06/1988	Hines et al.		
41.		4,761,072	08/1988	Pryor		
42.		4,764,016	08/1988	Johansson		
43.		4,779,212	10/1988	Levy		
44.		4,782,239	11/1988	Hirose et al.		
45.		4,788,481	11/1988	Niwa		
46.		4,794,262	12/1988	Sato et al.		
47.		4,804,261	02/1989	Kirschen		
48.		4,805,615	02/1989	Carol		
49.		4,809,694	03/1989	Ferrara		
50.		4,821,200	04/1989	Öberg		
51.		4,822,163	04/1989	Schmidt		
52.		4,829,373	05/1989	Leberl et al.		
53.		4,838,265	06/1989	Cosman et al.		

Examiner:

Date Considered:

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<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 3 of 11	ATTORNEY DOCKET NO.	SERIAL No.
	5074A-000064	10/644,680
	APPLICANT	
	Kevin J. Frank et al.	
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U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
54.		4,841,967	06/1989	Chang et al.		
55.		4,825,091	08/1989	Breyer et al.		
56.		4,860,331	08/1989	Williams et al.		
57.		4,869,247	09/1989	Howard, III et al.		
58.		4,875,165	10/1989	Fencil et al.		
59.		4,875,478	10/1989	Chen		
60.		4,884,566	12/1989	Mountz et al.		
61.		4,896,673	01/1990	Rose et al.		
62.		4,955,891	09/1990	Carol		
63.		4,961,422	10/1990	Marchosky et al.		
64.		5,017,139	05/1991	Mushabac		
65.		5,047,036	09/1991	Koutrouvelis		
66.		5,078,140	01/1992	Kwoh		
67.		5,098,426	03/1992	Sklar et al.		
68.		5,099,846	03/1992	Hardy		
69.		5,143,076	09/1992	Hardy et al.		
70.		5,193,106	03/1993	DeSena		
71.		5,207,688	05/1993	Carol		
72.		5,224,049	06/1993	Mushabac		
73.		5,230,338	07/1993	Allen et al.		
74.		5,230,623	07/1993	Guthrie et al.		
75.		5,257,998	11/1993	Ota et al.		
76.		5,261,404	11/1993	Mick et al.		
77.		5,285,787	02/1994	Machida		
78.		5,291,889	03/1994	Kenet et al.		
79.		5,299,253	03/1994	Wessels		
80.		5,300,080	04/1994	Clayman et al.		

Examiner:	Date Considered:
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<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 4 of 11	ATTORNEY DOCKET NO.	SERIAL No.
	5074A-000064	10/644,680
	APPLICANT	
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U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
81.		5,306,271	04/1994	Zinreich et al.		
82.		5,307,072	04/1994	Jones, Jr.		
83.		5,330,485	07/1994	Clayman et al.		
84.		5,359,417	10/1994	Müller et al.		
85.		5,371,778	12/1994	Yanof et al.		
86.		5,394,875	03/1995	Lewis et al.		
87.		5,398,684	03/1995	Hardy		
88.		5,413,573	05/1995	Koivukangas		
89.		5,457,641	10/1995	Zimmer et al.		
90.		5,469,847	11/1995	Zinreich et al.		
91.		5,480,439	01/1996	Bisek et al.		
92.		5,514,146	05/1996	Lam et al.		
93.		5,566,681	10/1996	Manwaring et al.		
94.		5,568,384	10/1996	Robb et al.		
95.		5,575,798	11/1996	Koutrouvelis		
96.		5,590,215	12/1996	Allen		
97.		5,611,025	03/1997	Lorensen et al.		
98.		5,646,524	07/1997	Gilboa		
99.		5,682,890	11/1997	Kormos et al.		
100.		5,696,500	12/1997	Taylor et al.		
101.		5,740,802	04/1998	Nafis et al.		
102.		5,767,669	06/1998	Hansen et al.		
103.		5,767,960	06/1998	Orman		
104.		5,769,843	06/1998	Abela et al.		
105.		5,810,008	09/1998	Dekel et al.		
106.		5,820,553	10/1998	Hughes		
107.		5,828,770	10/1998	Leis et al.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 5 of 11	ATTORNEY DOCKET NO.	SERIAL No.
	5074A-000064	10/644,680
	APPLICANT	
	Kevin J. Frank et al.	
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	August 20, 2003	3736

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
108.		5,882,304	03/1999	Ehnholm et al.		
109.		5,889,834	03/1999	Vilsmeier et al.		
110.		5,947,980	09/1999	Jensen et al.		
111.		5,951,571	09/1999	Audette		
112.		5,957,844	09/1999	Dekel et al.		
113.		5,967,982	10/1999	Barnett		
114.		6,006,127	12/1999	Van Der Brug et al.		
115.		6,013,087	01/2000	Adams et al.		
116.		6,014,580	01/2000	Blume et al.		
117.		6,071,288	06/2000	Carol et al.		
118.		6,076,008	06/2000	Bucholz		
119.		6,096,050	08/2000	Audette		
120.		6,122,541	09/2000	Cosman et al.		
121.		6,147,480	11/2000	Osadchy et al.		
122.		6,165,181	12/2000	Heilbrun et al.		
123.		6,178,345	01/2001	Vilsmeier et al.		
124.		6,194,639	02/2001	Botella et al.		
125.		6,201,387	03/2001	Govari		
126.		6,203,497	03/2001	Dekel et al.		
127.		6,211,666	04/2001	Acker		
128.		2001/0007918	07/2001	Vilsmeier et al.		
129.		6,259,942	07/2001	Westermann et al.		
130.		6,285,902	09/2001	Kienzle, III et al.		
131.		2002/0095081	07/2002	Vilsmeier		
132.		2004/0024309	02/2004	Ferre et al.		
133.		6,314,310	11/2001	Ben-Haim et al.		
134.		6,427,314	08/2002	Acker		

Examiner:	Date Considered:
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<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 6 of 11	ATTORNEY DOCKET NO.	SERIAL No.
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U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
135.		6,478,802	11/2002	Kienzle, III et al.		
136.		6,484,049	11/2002	Seeley et al.		
137.		6,490,475	12/2002	Seeley et al.		
138.		6,516,046	02/2003	Fröhlich et al.		

FOREIGN PATENT DOCUMENTS							
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes No	
1.		EP 0 062 941	03/1982	Europe			
2.		EP 0 119 660	09/1984	Europe			
3.		EP 0 155 857	01/1985	Europe			
4.		EP 0 326 768	12/1988	Europe			
5.		EP 0 427 358	10/1990	Europe			
6.		EP 0 456 103	05/1991	Europe			
7.		EP 0 908 146	10/1998	Europe			
8.		EP 0 930 046	10/1998	Europe			
9.		DE 35 08730	03/1985	Germany		Abstract	
10.		DE 37 17 871	05/1987	Germany		Abstract	
11.		DE 38 38011	11/1988	Germany		Abstract	
12.		DE 42 13 426	04/1992	Germany		Abstract	
13.		DE 42 25 112	07/1992	Germany		Abstract	
14.		DE 197 15 202	04/1997	Germany		Abstract	
15.		DE 197 47 427	10/1997	Germany		Abstract	
16.		DE 197 51 761	11/1997	Germany		Abstract	
17.		DE 198 32 296	07/1998	Germany		Abstract	
18.		GB 2 094 590	02/1982	Great Britain			
19.		GB 2 164 856	10/1984	Great Britain			
20.		JP 61-94639	10/1984	Japan			No

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FOREIGN PATENT DOCUMENTS							
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation	
						Yes	No
21.		JP 62-327	06/1985	Japan			X
22.		JP 63-240851	03/1987	Japan			X
23.		JP 3-267054	03/1990	Japan		Abstract	
24.		FR 2 618 211	07/1987	France		Abstract	
25.		WO 90/05494	11/1989	WIPO			
26.		WO 95/07055	09/1994	WIPO		Abstract	
27.		WO 96/32059	11/1995	WIPO			
28.		WO 97/49453	06/1997	WIPO			
29.		WO 97/36192	10/1997	WIPO		Abstract	
30.		WO 99/23956	11/1997	WIPO			
31.		WO 99/15097	09/1998	WIPO			
32.		WO 99/21498	10/1998	WIPO		Abstract	
33.		WO 99/27839	12/1998	WIPO			
34.		WO 99/33406	12/1998	WIPO			
35.		WO 99/37208	07/1999	WIPO			
36.		WO 99/38449	01/1999	WIPO			
37.		WO 99/52094	04/1999	WIPO			
38.		WO 99/26549	06/1999	WIPO			
39.		WO 99/29253	06/1999	WIPO			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
1.		Adams et al., Computer-Assisted Surgery, IEEE Computer Graphics & Applications, pp. 43-51, (May 1990)
2.		Bergstrom et al. Stereotaxic Computed Tomography, Am. J. Roentgenol, vol. 127 pp. 167-170 (1976)
3.		Brown, R., M.D., A Stereotactic Head Frame for Use with CT Body Scanners, Investigative Radiology © J.B. Lippincott Company, pp. 300-304 (July-August 1979)

Examiner:	Date Considered:
-----------	------------------

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	August 20, 2003	3736

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
4.		Bucholz, R.D., et al. Image-guided surgical techniques for infections and trauma of the central nervous system, Neurosurg. Clinics of N.A., vol. 7, No. 2, pp. 187-200 (1996)
5.		Bucholz, R.D., et al., A Comparison of Sonic Digitizers Versus Light Emitting Diode-Based Localization, Interactive Image-Guided Neurosurgery, Chapter 16, pp. 179-200 (1993)
6.		Bucholz, R.D., et al., Intraoperative localization using a three dimensional optical digitizer, SPIE – The Intl. Soc. for Opt. Eng., vol. 1894, pp. 312-322 (Jan. 17-19, 1993)
7.		Bucholz, R.D., et al., Intraoperative Ultrasonic Brain Shift Monitor and Analysis, Stealth Station Marketing Brochure (2 pages) (undated)
8.		Bucholz, R.D., et al., The Correction of Stereotactic Inaccuracy Caused by Brain Shift Using an Intraoperative Ultrasound Device, First Joint Conference, Computer Vision, Virtual Reality and Robotics in Medicine and Medical Robotics and Computer-Assisted Surgery, Grenoble, France, pp. 459-466 (Mar. 19-22, 1997)
9.		Cutting M.D. et al., Optical Tracking of Bone Fragments During Craniofacial Surgery, Second Annual International Symposium on Medical Robotics and Computer Assisted Surgery, pp. 221-225, (November 1995)
10.		Friets, E.M., et al. A Frameless Stereotaxic Operating Microscope for Neurosurgery, IEEE Trans. on Biomed. Eng., vol. 36, No. 6, pp. 608-617 (July 1989)
11.		Gallen, C.C., et al., Intracranial Neurosurgery Guided by Functional Imaging, Surg. Neurol., vol. 42, pp. 523-530 (1994)
12.		Galloway, R.L., Jr. et al, Optical localization for interactive, image-guided neurosurgery, SPIE, Vol. 2164, pp. 137-145 (undated)
13.		Galloway, R.L., et al., Interactive Image-Guided Neurosurgery, IEEE Trans. on Biomed. Eng., vol. 89, No. 12, pp. 1226-1231 (1992)
14.		Gomez, C.R., et al., Transcranial Doppler Ultrasound Following Closed Head Injury: Vasospasm or Vasoparalysis?, Surg. Neurol., vol. 35, pp. 30-35 (1991)
15.		Grimson, W.E.L., An Automatic Registration Method for Frameless Stereotaxy, Image Guided Surgery, and enhanced Reality Visualization, IEEE, pp. 430-436 (1994)
16.		Grimson, W.E.L., et al., Virtual-reality technology is giving surgeons the equivalent of x-ray vision helping them to remove tumors more effectively, to minimize surgical wounds and to avoid damaging critical tissues, Sci. Amer., vol. 280, No. 6, pp. 62-69 (Jun. 1999)
17.		Guthrie, B.L., Graphic-Interactive Cranial Surgery: The Operating Arm System, Handbook of Stereotaxy Using the CRW Apparatus, Chapter 13, pp. 193-211 (undated)

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	August 20, 2003	3736

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
18.		Hardy, T., M.D., et al., CASS: A Program for Computer Assisted Stereotaxic Surgery, The Fifth Annual Symposium on Comptuer Applications in Medical Care, Proceedings, November 1-4, 1981, IEEE, pp. 1116-1126, (1981)
19.		Heilbrun, M.D., Progressive Technology Applications, Neurosurgery for the Third Millenium, Chapter 15, J. Whitaker & Sons, Ltd., Amer. Assoc. of Neurol. Surgeons, pages 191-198 (1992)
20.		Heilbrun, M.P., Computed Tomography – Guided Stereotactic Systems, Clinical Neurosurgery, Chapter 31, pp. 564-581 (1983)
21.		Heilbrun, M.P., et al., Stereotactic Localization and Guidance Using a Machine Vision Technique, Sterotact & Funct. Neurosurg., Proceed. of the Mtg. of the Amer. Soc. for Sterot. and Funct. Neurosurg. (Pittsburgh, PA) vol. 58, pp. 94-98 (1992)
22.		Kall, B., The Impact of Computer and Imaging Technology on Stereotactic Surgery, Proceedings of the Meeting of the American Society for Stereotactic and Functional Neurosurgery, pp. 10-22 (1987)
23.		Kato, A., et al., A frameless, armless navigational system for computer-assisted neurosurgery, J. Neurosurg., vol. 74, pp. 845-849 (May 1991)
24.		Kelly, P.J., Computer Assisted Stereotactic Biopsy and Volumetric Resection of Pediatric Brain Tumors, Brain Tumors in Children, Neurologic Clinics, Vol. 9, No. 2, pp. 317-336 (May 1991)
25.		Kelly, P.J., et al., Results of Computed Tomography-based Computer-assisted Stereotactic Resection of Metastatic Intracranial Tumors, Neurosurgery, Vol. 22, No. 1, Part 1, 1988, pp. 7-17 (January 1988)
26.		Kelly, P.J., Computer-Directed Stereotactic Resection of Brain Tumors, Neurologica Operative Atlas, Vol. 1, No. 4, pp. 299-313 (1991)
27.		Kelly, P.J., Stereotactic Imaging, Surgical Planning and Computer-Assisted Resection of Intracranial Lesions: Methods and Results, Advances and Technical Standards in Neurosurgery, Vol. 17, pp. 78-118, (1990)
28.		Kim, W.S. et al., A Helmet Mounted Display for Telerobotics, IEEE, pp. 543-547 (1988)
29.		Klimek, L., et al., Long-Term Experience with Different Types of Localization Systems in Skull-Base Surgery, Ear, Nose & Throat Surgery, Chapter 51, pp. 635-638 (undated)
30.		Kosugi, Y., et al., An Articulated Neurosurgical Navigation System Using MRI and CT Images, IEEE Trans. on Biomed. Eng. vol. 35, No. 2, pp.147-152 (Feb. 1988)
31.		Krybus, W., et al., Navigation Support for Surgery by Means of Optical Position Detection, Computer Assisted Radiology Proceed. of the Intl. Symp. CAR '91 Computed Assisted Radiology, pp. 362-366 (Jul. 3-6, 1991)

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	FILING DATE	GROUP
	August 20, 2003	3736

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
32.		Kwoh, Y.S., Ph.D., et al., A New Computerized Tomographic-Aided Robotic Stereotaxis System, Robotics Age, Vol.7, No. 6, pp. 17-22 (June 1985)
33.		Lavallee, S., et al., Computer Assisted Knee Anterior Cruciate Ligament Reconstruction First Clinical Tests, Proceedings of the First International Symposium on Medical Robotics and Computer Assisted Surgery, pp. 11-16 (September 1994)
34.		Lavallee, S., et al., Computer Assisted Medical Interventions, NATO ASI Series, vol. F 60, 3d Imaging in Medic., pp. 301-312 (1990)
35.		Leavitt, D.D., et al., Dynamic Field Shaping to Optimize Stereotactic Radiosurgery, I.J. Rad. Onc. Biol. Phys., vol. 21, pp. 1247-1255 (1991)
36.		Maurer, Jr., et al., Registration of Head CT Images to Physical Space Using a Weighted Combination of Points and Surfaces, IEEE Trans. on Med. Imaging, Vol. 17, No. 5, pp. 753-761 (October 1998)
37.		McGirr, S., M.D., et al., Stereotactic Resection of Juvenile Pilocytic Astrocytomas of the Thalamus and Basal Ganglia, Neurosurgery, Vol. 20, No. 3, pp. 447-452, (1987)
38.		Ng, W.S. et al., Robotic Surgery - A First-Hand Experience in Transurethral Resection of the Prostate Surgery, IEEE Eng. in Med. and Biology, pp. 120-125 (March 1993)
39.		Penn, R.D., et al., Stereotactic Surgery with Image Processing of Computerized Tomographic Scans, Neurosurgery, vol. 3, No. 2, pp. 157-163 (Sep.-Oct. 1978)
40.		Pixsys, 3-D Digitizing Accessories, by Pixsys (marketing brochure)(undated) (2 pages)
41.		Reinhardt, H., et al., A Computer-Assisted Device for Intraoperative CT-Correlated Localization of Brain Tumors, pp. 51-58 (1988)
42.		Reinhardt, H.F. et al., Sonic Stereometry in Microsurgical Procedures for Deep-Seated Brain Tumors and Vascular Malformations, Neurosurgery, vol. 32, No. 1, pages 51-57 (Jan. 1993)
43.		Reinhardt, H.F., et al., Mikrochirurgische Entfernung tiefliegender Gefäßmißbildungen mit Hilfe der Sonar-Stereometrie (Microsurgical Removal of Deep-Seated Vascular Malformations Using Sonar Stereometry). Ultraschall in Med. 12, pp. 80-83 (1991)
44.		Reinhardt, Hans. F., Neuronavigation: A Ten-Year Review, Neurosurgery, pp.329-341 (undated)
45.		Simon, D.A., Accuracy Validation in Image-Guided Orthopaedic Surgery, Second Annual Intl. Symp. on Med. Rob. an Comp-Assisted surgery, MRCAS '95, pp. 185-192 (undated)
46.		Smith, K.R., et al. Multimodality Image Analysis and Display Methods for Improved Tumor Localization in Stereotactic Neurosurgery, Annul Intl. Conf. of the IEEE Eng. in Med. and Biol. Soc., vol. 13, No. 1, p. 210 (1991)

Examiner:

Date Considered:

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	FILING DATE	GROUP
	August 20, 2003	3736

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
47.		Tan, K., Ph.D., et al., A frameless stereotactic approach to neurosurgical planning based on retrospective patient-image registration, J Neurosurgery, Vol. 79, pp. 296-303 (August 1993)
48.		Thompson, et al., A System for Anatomical and Functional Mapping of the Human Thalamus, Computers and Biomedical Research, Vol. 10, pp. 9-24 (1977)
49.		Trobraugh, J.W., et al., Frameless Stereotactic Ultrasonography: Method and Applications, Computerized Medical Imaging and Graphics, Vol. 18, No. 4, pp. 235-246 (1994)
50.		Von Hanwehr et al., Foreword, Computerized Medical Imaging and Graphics, Vol. 18, No. 4, pp. 225-228, (July-August 1994)
51.		Wang, M.Y., et al., An Automatic Technique for Finding and Localizing Externally Attached Markers in CT and MR Volume Images of the Head, IEEE Trans. on Biomed. Eng., Vol. 43, No. 6, pp. 627-637 (June 1996)
52.		Watanabe, E., M.D., et al., Open Surgery Assisted by the Neuronavigator, a Stereotactic, Articulated, Sensitive Arm, Neurosurgery, Vol. 28, No. 6, pp. 792-800 (1991)

Examiner:	Date Considered:
-----------	------------------

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